

A STUDY ON PULMONARY FUNCTION TESTS, THYROID PROFILE AND ABSOLUTE EOSINOPHIL COUNT AMONG MALE PETROL PUMP WORKERS

ABSTRACT

INTRODUCTION:

Occupation related health hazards are becoming very common in recent years. Petrol pump workers have increased exposure of petroleum products and air pollutants. Benzene present in the petrol causes impaired lung function, haematotoxicity, neurotoxicity and impaired thyroid function in petrol pump workers.

Health awareness has to be created among petrol pump workers to use personal protective measures such as masks and respirators to reduce inhalation of the hazardous agents in petrol / diesel vapors and their exhaust.

AIM:

To compare and evaluate the pulmonary function test, absolute eosinophil count and thyroid profile of male petrol pump workers with the age and sex matched controls.

MATERIALS AND METHODS:

Cross sectional study was conducted in research laboratory, department of physiology, Coimbatore medical college, Coimbatore and in the office rooms of the petrol bunks located in the vicinity of Coimbatore medical college, Coimbatore. 50 cases and 50 controls were selected and pulmonary function test was done using portable spirometry along with thyroid profile and absolute eosinophil counts.

RESULTS:

The data were collected and encoded in master sheet. Using SPSS 20 software Mean, Standard deviation, P value were calculated and compared between the parameters. There was a significant decrease in pulmonary functions, altered thyroid profile and increased absolute eosinophil count in the study population.

CONCLUSION:

The present study in petrol pump workers showed a decreased pulmonary function test, altered thyroid profile and increased absolute eosinophil count. Health awareness and periodic evaluation of lung function and blood parameters have to be advised in petrol pump worker.

KEY WORDS:

Petrol pump workers, Pulmonary function test, Absolute eosinophil count, Thyroid profile.